

AMENDMENTS TO THE CLAIMS

In the Claims:

1. (Currently Amended) An aircraft comprising:

a fuselage with a forward end, and aft end and two lateral sides;

a pair of coanda each with an inner and outer end;

a pair of upper wings each with an inner and outer end and a top surface and a bottom surface; and

a pair of lower wings each with an inner and outer end and a top surface and a bottom surface;

one of the coanda is disposed on either side of the fuselage with the inner ends attached to the lateral sides of the fuselage;

one of the upper wings is disposed on either side of the fuselage with the inner ends attached to the lateral sides of the fuselage, located aft and above in relation to the coanda;

one of the lower wings is disposed on either side of the fuselage with the inner ends attached to the lateral sides of the fuselage, located aft and below in relation to the coanda, and below and forward in relationship to the upper wings;

the outer ends of the coanda, upper wing and lower wing located on each lateral side meet;

wherein when there is an airflow across the coanda and wings, the coanda splits the airflow between the upper wing and the lower wing and increases density and velocity of the airflow across the top surface of the lower wing.

2. (Original) The aircraft as claimed in claim 1, wherein the coandas have a curved top surface and a curved bottom surface and a generally downward angle with relation from forward to aft of the fuselage.
3. (Original) The aircraft as claimed in claim 1, wherein the upper wings have a curved upper surface and a flat bottom surface.
4. (Original) The aircraft as claimed in claim 1, wherein the lower wings have a curved upper surface and a flat bottom surface.
5. (Original) The aircraft as claimed in claim 1, further comprising a propeller driven by an engine mounted on the forward end of the fuselage.
6. (Original) The aircraft as claimed in claim 1, further comprising a propeller driven by an engine mounted on the aft end of the fuselage.
7. (Original) The aircraft as claimed in claim 1, further comprising a pair of engines for generating thrust located on the forward end of the fuselage on either lateral side.
8. (Original) The aircraft as claimed in claim 7, further comprising a pair of saddle shunts, a pair of through-fuselage ducts, a pair of coanda ducts and a pair of crossover ducts located just aft of the engines;

the saddle shunt are hingedly connected to the fuselage and move between an open and a closed position;

wherein the thrust flows through the through fuselage ducts when the saddle shunts are in the open position and through the coanda ducts and the crossover ducts when the saddle shunts are in the closed position.

9. (Original) The aircraft as claimed in claim 7, further comprising a pair of thrust diverters attached to either side of the aft end of the fuselage.
10. (Currently Amended) The aircraft as claimed in claim 1, wherein the top and bottom surfaces of the coandas and the top and bottom surfaces of the upper wings and the top and bottom surfaces of the lower wing are covered with a variable camber aero hydrodynamic surface comprised of a plurality of flexible cells.
11. (Original) The aircraft as claimed in claim 10, wherein each cell has a pressure line with a pressure valve connecting the cell to a pressure manifold and a vacuum line with a vacuum valve connecting it to a vacuum manifold.
12. (Currently Amended) An aircraft comprising:
- a fuselage with a forward end, and aft end and two lateral sides;
 - a pair of coanda each with a curved top surface, a curved bottom surface, an inner end, an outer end and a generally downward angle with relation from forward to aft of the fuselage;

a pair of upper wings each with a curved upper surface, a generally flat bottom surface, an inner end and an outer end;

a pair of lower wings each with a curved upper surface, a generally flat bottom surface, an inner end and an outer end;

a propeller driven by an engine mounted on the forward end of the fuselage; and

a propeller driven by an engine mounted on the aft end of the fuselage;

one of the coanda is disposed on either side of the fuselage with the inner ends attached to the lateral sides of the fuselage;

one of the upper wings is disposed on either side of the fuselage with the inner ends attached to the lateral sides of the fuselage, located aft and above in relation to the coanda;

one of the lower wings is disposed on either side of the fuselage with the inner ends attached to the lateral sides of the fuselage, located aft and below in relation to the coanda, and below and forward in relationship to the upper wings;

the outer ends of the coanda, upper wing and lower wing located on each lateral side meet;

wherein when there is an airflow across the coanda and wings, the coanda splits the airflow between the upper wing and the lower wing and increases density and velocity of the airflow across the top surface of the lower wing.

13. (Original) An aircraft comprising:

a fuselage with a forward end, and aft end and two lateral sides;

a pair of coanda each with a curved top surface, a curved bottom surface, an inner end, an outer end and a generally downward angle with relation from forward to aft of the fuselage;

a pair of upper wings each with a curved upper surface, a generally flat bottom surface, an inner end and an outer end;

a pair of lower wings each with a curved upper surface, a generally flat bottom surface, an inner end and an outer end;

a pair of engines for generating thrust located on the forward end of the fuselage on either lateral side;

A1 a pair of saddle shunts, a pair of through-fuselage ducts, a pair of coanda ducts and a pair of crossover ducts located just aft of the engines,

the saddle shunts are hingedly connected to the fuselage and move between an open and a closed position,

wherein the thrust flows through the through fuselage ducts when the saddle shunts are in the open position and through the coanda ducts and the crossover ducts when the saddle shunts are in the closed position; and

a pair of thrust diverters attached to either side of the aft end of the fuselage;

one of the coanda is disposed on either side of the fuselage with the inner ends attached to the lateral sides of the fuselage;

one of the upper wings is disposed on either side of the fuselage with the inner ends attached to the lateral sides of the fuselage, located aft and above in relation to the coanda;

one of the lower wings is disposed on either side of the fuselage with the inner ends attached to the lateral sides of the fuselage, located aft and below in relation to the coanda, and below and forward in relationship to the upper wings;

the outer ends of the coanda, upper wing and lower wing located on each lateral side meet;

wherein the top and bottom surfaces of the coandas and the top and bottom surfaces of the upper wings and the top and bottom surfaces of the lower wing are covered with a variable camber aero hydrodynamic surface comprised of a plurality of cells, and

each cell has a pressure line with a pressure valve connecting the cell to a pressure manifold and a vacuum line with a vacuum valve connecting it to a vacuum manifold.

14. (New) An aircraft control surface comprising: a plurality of flexible cells, wherein each cell has a pressure line with a pressure valve connecting the cell to a pressure manifold and a vacuum line with a vacuum valve connecting it to a vacuum manifold.